

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

January 12, 2012

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

VIA E-MAIL

Mr. Jeff Davis  
NRG  
1201 Fannin Street  
Houston, TX 77002

Re: Request for Action Plan regarding NRG Texas Power, LLC - Limestone Electric Generating Station

Dear Mr. Davis,

On February 22, 2011 the United States Environmental Protection Agency ("EPA") and its engineering contractors conducted a coal combustion residual (CCR) site assessment at the NRG Texas Power, LLC - Limestone Electric Generating Station facility. The purpose of this visit was to assess the structural stability of the impoundments or other similar management units that contain "wet" handled CCRs. We thank you and your staff for your cooperation during the site visit. Subsequent to the site visit, EPA sent you a copy of the draft report evaluating the structural stability of the units at the NRG Texas Power, LLC - Limestone Electric Generating Station facility and requested that you submit comments on the factual accuracy of the draft report to EPA. Your comments were considered in the preparation of the final report.

The final report for the NRG Texas Power, LLC - Limestone Electric Generating Station facility is enclosed. This report includes a specific condition rating for each CCR management unit and recommendations and actions that our engineering contractors believe should be undertaken to ensure the stability of the CCR impoundment(s) located at the NRG Texas Power, LLC - Limestone Electric Generating Station facility. These recommendations are listed in Enclosure 2.

Since these recommendations relate to actions which could affect the structural stability of the CCR management unit(s) and, therefore, protection of human health and the environment, EPA believes their implementation should receive the highest priority. Therefore, we request that you inform us on how you intend to address each of the recommendations found in the final report. Your response should include specific plans and schedules for implementing each of the recommendations. If you will not implement a recommendation, please provide a rationale. Please provide a response to this request by February 13, 2012. Please send your response to:

Mr. Stephen Hoffman

U.S. Environmental Protection Agency (5304P)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

If you are using overnight or hand delivery mail, please use the following address:

Mr. Stephen Hoffman  
U.S. Environmental Protection Agency  
Two Potomac Yard  
2733 S. Crystal Drive  
5<sup>th</sup> Floor, N-5838  
Arlington, VA 22202-2733

You may also provide a response by e-mail to [hoffman.stephen@epa.gov](mailto:hoffman.stephen@epa.gov), [kohler.james@epa.gov](mailto:kohler.james@epa.gov), and [englander.jana@epa.gov](mailto:englander.jana@epa.gov).

You may assert a business confidentiality claim covering all or part of the information requested, in the manner described by 40 C. F. R. Part 2, Subpart B. Information covered by such a claim will be disclosed by EPA only to the extent and only by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, the information may be made available to the public by EPA without further notice to you. If you wish EPA to treat any of your response as "confidential" you must so advise EPA when you submit your response.

EPA will be closely monitoring your progress in implementing the recommendations from these reports and could decide to take additional action if the circumstances warrant.

You should be aware that EPA will be posting the report for this facility on the Agency website shortly.

Given that the site visit related solely to structural stability of the management units, this report and its conclusions in no way relate to compliance with RCRA, CWA, or any other environmental law and are not intended to convey any position related to statutory or regulatory compliance.

Please be advised that providing false, fictitious, or fraudulent statements of representation may subject you to criminal penalties under 18 U.S.C. § 1001.

If you have any questions concerning this matter, please contact Mr. Hoffman in the Office of Resource Conservation and Recovery at (703) 308-8413. Thank you for your continued efforts to ensure protection of human health and the environment.

Sincerely,  
/Suzanne Rudzinski/, Director  
Office of Resource Conservation and Recovery

Enclosure

## Enclosure 2

**NRG Texas Power, LLC - Limestone Electric Generating Station Recommendations  
(from the final assessment report)****1.0 CONCLUSIONS AND RECOMMENDATIONS****1.1 CONCLUSIONS**

Conclusions are based on visual observations from a one-day site visit on February 22, 2011, and review of technical documentation provided by NRG Texas Power LLC.

**1.1.1 Conclusions Regarding the Structural Soundness of the Management Unit(s)**

The impoundment embankments appear to be structurally sound based on a review of the engineering data provided by the owner's technical staff and Dewberry engineers' observations during the site visit. Structural stability analyses under long-term static conditions were performed on both ponds.

The results far exceeded the minimum Factors of Safety (see Appendix A of the final report, Doc 13). Due to high Factors of Safety for the ponds under static conditions and the low seismic activity in the region, a pseudo-static seismic analysis is not necessary to further characterize the structural soundness of the dam embankments.

**1.1.2 Conclusions Regarding the Hydrologic/Hydraulic Safety of the Management Unit(s)**

Hydrologic and hydraulic analyses were provided to Dewberry in May-June 2011 (see Appendix A of the final report, Docs 14 and 15). The results show that the ponds can hold the 100-year flood within the pond impoundments with no overtopping. Inundation maps show that any site flooding remains within the property of the NRG Limestone Generating Station.

**1.1.3 Conclusions Regarding the Adequacy of Supporting Technical Documentation**

The supporting technical documentation is adequate. Engineering documentation reviewed is referenced in Appendix A of the final report.

**1.1.4 Conclusions Regarding the Description of the Management Unit(s)**

The description of the Management Units provided by the owner was an accurate representation of what Dewberry observed in the field.

**1.1.5 Conclusions Regarding the Field Observations**

Dewberry staff was provided access to all areas in the vicinity of the management units required to conduct a thorough field observation. The visible parts of the embankment dikes and outlet structure were observed to have no signs of overstress, significant settlement, shear failure, or other signs of instability. Embankments appear structurally sound. There are no apparent indications of unsafe conditions or conditions needing remedial action.

**1.1.6 Conclusions Regarding the Adequacy of Maintenance and Methods of Operation**

The current maintenance and methods of operation appear to be adequate for the DSDA pond and the ST-18 pond. There was no evidence of significant embankment repairs or prior releases observed during the field inspection. However, there was extensive brushy vegetation and trees on the ST-18 pond embankments. Subsequent to the site visit the trees and brushy vegetation were removed by NRG Texas. Photographs were provided to document removal of the vegetation. Also subsequent to the site visit, NRG Texas combined operating procedures, maintenance procedures, and emergency action plans into an all-encompassing O&M manual for the plant.

#### **1.1.7 Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program**

The surveillance program appears to be adequate. Groundwater monitoring wells were installed in 1988. MW-6 was installed down-gradient of the DSDA and MW-4 down-gradient of the ST-18 pond. Semi-annual samplings are conducted by taking static water level measurements and groundwater samples.

#### **1.1.8 Classification Regarding Suitability for Continued Safe and Reliable Operation**

The DSDA pond and ST-18 pond are **Satisfactory** for continued safe and reliable operation.

### **1.2 RECOMMENDATIONS**

#### **1.2.1 Recommendations Regarding Continued Safe and Reliable Operation**

No recommendations appear warranted at this time.